REMARKS

Amendments to the Specification:

The amendments to the specification have been made to conform to U.S. practice.
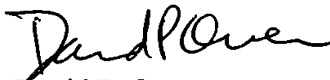
Amendments to the Claims:

The amendments to the claims have been made to conform to U.S. practice and so that the scope and language of the claims is more precise and clear in defining what the Applicant considers to be his invention. No new matter has been added.

<center>*****</center>

Any extension of time that may be deemed necessary to further the prosecution of this application is hereby requested. The Commissioner is authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. 08-3038, referencing the docket number shown above.

The Examiner is respectfully requested to contact the undersigned by telephone at the number given below in order to resolve any questions.

Respectfully submitted,

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In the Specification:

Title at page 1, line 4:

[Description] <u>BACKGROUND OF THE INVENTION</u>

<u>1. Field of the Invention</u>

Title at page 1, line 9:

<u>2. Description of the Related Art</u>

Title at page 2, line 15:

<u>BRIEF SUMMARY OF THE INVENTION</u>

Title at page 3, above line 1:

<u>BRIEF DESCRIPTION OF THE DRAWINGS</u>

Title at page 3, line 16:

<u>DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS</u>

Title at page 5, line 1:

[Patent Claims] <u>What is claimed is:</u>

In the Claims:

Please cancel claims 1 and 2.

[1.   A method for power optimization in a vehicle/train, using time reserves which are included when planning a schedule, wherein in order to achieve a power-saving travel mode with the aid of an optimization algorithm, the dependence of the vehicle efficiency or the power loss on the operating point is taken into account.]

[2.   The method claimed in claim 1, wherein the dependence of the vehicle efficiency or the power loss on the operating point is taken into account via a function of the efficiency or power loss as a function of influencing variables, such as tractive force and/or speed and/or temperature.]

Please add new claims 3-22 as follows:

3. (new)   A method for optimizing power for a vehicle during at least a portion of a trip comprising:

determining the time available for the portion of the trip;

identifying a first function to determine efficiency for the vehicle as a function of its operating point; and

calculating one or more travel modes for the portion of the trip, each of the travel modes comprising at least an acceleration rate applied for a first time period and a braking rate applied for second time period,

wherein the first function is used to calculate the travel modes to minimize power required by the vehicle to travel over the portion of the trip in the time available.

4. (new)   The method of claim 3, further comprising determining a schedule for the trip which includes a time reserve, and wherein the time reserve is included in the time available for the portion of the trip.

5. (new)   The method of claim 3, wherein the efficiency for the vehicle is determined as a function of tractive force or vehicle speed or temperature.

6. (new)   The method of claim 3, wherein the efficiency for the vehicle is determined as a function of tractive force and vehicle speed.

7. (new)   The method of claim 4, wherein the efficiency for the vehicle is determined as a function of tractive force and vehicle speed.

8. (new)   The method of claim 3, further comprising:

dividing the portion of the trip into one or more sections, one or more of the sections having a maximum speed; and

calculating the travel modes so that the vehicle does not exceed the maximum speed for a section while the vehicle is traveling on the section.

9. (new)   The method of claim 7, further comprising:

dividing the portion of the trip into one or more sections, one or more of the sections having a maximum speed; and

calculating the travel modes so that the vehicle does not exceed the maximum speed for a section while the vehicle is traveling on the section.

10. (new)   The method of claim 3, wherein the travel modes comprise no substantial periods of travel at constant speed.

11. (new)   A method for optimizing power for a vehicle during at least a portion of a trip comprising:

determining the time available for the portion of the trip;

identifying a second function to determine power loss for the vehicle as a function of its operating point; and

calculating one or more travel modes for the portion of the trip, each of the travel modes comprising at least an acceleration rate applied for a first time period and a braking rate applied for second time period,

wherein the first function is used to calculate the travel modes to minimize power required by the vehicle to travel over the portion of the trip in the time available.

12. (new)   The method of claim 11, further comprising determining a schedule for the trip which includes a time reserve, and wherein the time reserve is included in the time available for the portion of the trip.

13. (new)   The method of claim 11, wherein the power loss for the vehicle is determined as a function of tractive force or vehicle speed or temperature.

14. (new)   The method of claim 11, wherein the power loss for the vehicle is determined as a function of tractive force and vehicle speed.

15. (new)   The method of claim 12, wherein the power loss for the vehicle is determined as a function of tractive force and vehicle speed.

16. (new)   The method of claim 11, further comprising:

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dividing the portion of the trip into one or more sections, one or more of the sections having a maximum speed; and

calculating the travel modes so that the vehicle does not exceed the maximum speed for a section while the vehicle is traveling on the section.

17. (new)   A method for determining an optimum travel mode for a vehicle during a portion of a trip, the travel mode comprising one or more acceleration rates, each acceleration rate applied for a specified period of time, the method comprising:

determining the time available for the portion of the trip;

determining efficiency for the vehicle as a function of its operating point;

calculating the optimum travel mode by using an optimization algorithm to calculate the acceleration rates and periods of time that each acceleration rate is applied to minimize power required by the vehicle to travel over the portion of the trip in the time available,

wherein the efficiency for the vehicle as a function of its operating point is used as an input to the optimization algorithm.

18. (new)   The method of claim 17, further comprising determining a schedule for the trip which includes a time reserve, and wherein the time reserve is included in the time available for the portion of the trip.

19. (new)   The method of claim 17, wherein the efficiency for the vehicle is determined as a function of tractive force or vehicle speed or temperature.

20. (new)   The method of claim 17, wherein the efficiency for the vehicle is determined as a function of tractive force and vehicle speed.

21. (new)   The method of claim 18, wherein the efficiency for the vehicle is determined as a function of tractive force and vehicle speed.

22. (new)   The method of claim 17, further comprising:

dividing the portion of the trip into one or more sections, one or more of the sections having a maximum speed; and

calculating the travel modes so that the vehicle does not exceed the maximum speed for a section while the vehicle is traveling on the section.